

PS-150

PS-300

PS-600

Power Supplies

User Manual



ADVANCING THE ART OF LIGHTING

PS-150 – Model #20150 (150 watts)
PS-300 – Model #20300 (300 watts)
PS-600 – Model #20600 (600 watts)

Software version 1.0
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DECLARATION OF CONFORMITY

Manufacturers Name: Wybron, Inc.
Manufacturers Address: 4830 List Dr., Colorado Springs, Colorado 80919 USA

Equipment Name: PS-600, PS-300 and PS-150 Power Supply
Equipment Model Numbers: 20600, 20300 and 20150

This product is in conformity with the following standards:

Referenced Safety Standard(s)	Referenced EMC Standard(s)
EN60598-1	EN55022
EN60598-2-17	EN61000

following the provisions of the EU LV Directive 73/23/EEC and the EU EMC Directive 89/336/EEC.

I declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature: Kenneth Fasen

Printed Name: KEN FASEN

Title: VP OF ENG.

Date: JAN 5, 2006

Safety Information

SAVE THESE INSTRUCTIONS READ AND FOLLOW ALL INSTRUCTIONS

This manual gives step-by-step instructions for the preparation, setup, and operation of the PS-150, PS-300 and PS-600 Power Supply.

There is a potential risk of fire, electric shock or injury to persons if the product is not used as instructed.

WARNING: When using electrical appliances, use basic precautions, including:

- Read this manual before connecting power.
- Use supervision around children.
- Use in a dry location only.

The PS Power Supply is to be used in an indoor environment only and is not intended for residential use.

For continued protection against risk of fire, replace only with same type and rating of fuse.

Protection against electric shock is assured only if the mains connected power supply cord set is connected to a properly earthed grounding type receptacle.

An all pole disconnect device must be located adjacent to the unit or, if the AC cord is used as the main disconnect device, ensure that the socket-outlet is located/installed near the equipment and is easily accessible.

THE MAINS LEADS ARE COLORED IN ACCORDANCE WITH THE FOLLOWING CODE AND MUST BE CONNECTED IN THE FOLLOWING SCHEME:

- GREEN AND YELLOW: EARTH 
- BLUE: NEUTRAL
- BROWN: LINE

WARNING: THIS EQUIPMENT MUST BE EARTHED.

For questions, contact Wybron at 1-800-624-0146 or visit www.wybron.com.

Product Modification Warning

Wybron, Inc. products are designed and manufactured to meet the requirements of United States and International safety standards. Modifications to the products could affect safety and render the product non-compliant to relevant safety standards.

Notes de Sécurité

EPARGNER CES INSTRUCTIONS LIRE ET SUIVRE TOUTES INSTRUCTIONS

Ce manuel donne des instructions pour la préparation, l'organisation, et l'opération du le PS provision d'électricité.

Il y a un risqué de feu, décharge électrique, ou la blessure aux gens si le produit n'est pas utilise comme instruit.

AVERTISSEMENT: En utilisant des appareils électriques utilise la prudence fondamentale inclut:

- Lire ce manuel avant d'alimenter ou l'installation de l'accessoire.
- Utiliser la prudence près des enfants.
- Sécher l'emplacement seulement.


Le PS provision d'électricité va être utilise à la maison seulement et pas pour l'usage residential.

Pour la protection continuée contre le risque de feu, remplacer seulement avec le même type et le même classement de fusible.

La Protection contre la décharge électrique est seulement assurée si la série de corde connectée principale est connectée à un convenablement terre de type.

Un appareil débranchant doit être localisé à côté de l'unité ou, si la corde de courant alternatif est utilisée comme le principal débranche l'appareil, S'assurer que la douille-sortie localise/installé près de l'équipement et est facilement accessible.

LES AVANCES PRINCIPAUX SONT CONFORMEMENT COLORES AU CODE SUIVANT ET DOIVENT ETRE CONNECTES DANS L'ARRANGEMENT SUIVANT :

- vert et jaune– terre 
- bleu – neutre
- marron – ligne

L'AVERTISSEMENT – CET EQUIPEMENT DOIT ETRE FONDE.

Pour les questions, Wybron de contact à 1-800-624-0146 ou visite www.wybron.com.

L'Avertissement de Modification de Produit

Les produits de Wybron, Inc. sont conçus et a fabriqué pour rencontrer les conditions d'Etats-Unis et de norms de sûreté internationaux. Les modifications aux produits pourraient affecter la sûreté et rendent le produit non-conciliant aux normes de sûreté pertinentes.

Aviso Sobre Seguridad

SALVE ESTAS INSTRUCCIONES LEA Y SIGA TODAS INSTRUCCIONES

Este manual da el paso por paso las instrucciones para la preparación, para arreglo, y para la operación de la PS fuente del poder.

Hay un riesgo potencial del fuego, el calambre o la herida a personas si el producto no se utiliza como instruido.

ADVERTENCIA: Cuando se usa electrodomésticos, el uso las precauciones básicas, incluyendo:

- Lea este manual antes de accionar o instalar la instalación fija.
- Supervise a niños cercano.
- Seque ubicación sólo.

La PS fuente del poder deberá ser utilizado en un ambiente interior sólo y no es pensado para el uso residencial.

Para la protección continuada contra el riesgo del fuego, reemplaza sólo con mismo tipo y calificación de fusible.

La Protección contra calambre se asegura sólo si el conjunto conectado principal de cuerda es conectado a un apropiadamente earthed que muele receptáculo de tipo.

Una toda asta desconecta dispositivo se debe localizar adyacente a la unidad o, si la cuerda de C.A. se utiliza como el principal desconecta dispositivo, asegure que la enchufe-salida localiza/instalado cerca del equipo y sea fácilmente accesible

EL PRINCIPAL DIRIGE SON COLORADOS DE ACUERDO CON EL CODIGO SIGUIENTE Y se DEBE CONECTAR EN EL ESQUEMA SIGUIENTE:

- verde y amarillo – molió/la tierra (⊕)
- azul – neutral
- brown – línea

La **ADVERTENCIA** – ESTE EQUIPO DEBE SER EARTHED.

Para preguntas, el contacto Wybron en 1-800-624-0146 o visita www.wybron.com.

Advertencia de Modificación de Producto

Wybron, los productos S.a. se diseñan y son fabricados para encontrar los requisitos de Estados Unidos y estándares Internacionales de seguridad. Las modificaciones a los productos podrían afectar la seguridad y rendir el producto no conformista a estándares pertinentes de seguridad.

Sicherheitshinweise

BEHALTEN SIE DIESEN ANWEISUNGEN LESEN SIE UND GEHORCHEN SIE ALLEN ANWEISUNGEN

Dieses Handbuch gibt Schritt für Schritt Anweisungen zur Vorbereitung, Aufstellung, und Funktion dem PS Quelle der Kraft.

Es gibt ein potenzielles Risiko des Feuers, Elektroschocks oder Verletzung zu Personen, wenn das Produkt nicht benutzt ist, als unterrichtet ist.

WARNUNG: Beim Benutzen elektrischer Geräte, Gebrauch grundlegende Vorsichtsmaßnahmen, einschließlich:

- Lesen Sie dieses Handbuch vor Betreiben oder Installieren des Inventar.
- Benutzen Sie Aufsicht nahe Kinder.
- Trocken Sie Ort nur.


Der PS Quelle der Kraft soll in einer Hallenumwelt nur benutzt werden und ist für Heimumwelt nicht vorgehabt.

Für fortgesetzten Schutz gegen Risiko des Feuers, ersetzt nur mit gleichem Typ und Bewertung der Sicherung.

Schutz gegen Elektroschock ist nur gezusichert, wenn die Hauptleitungen Schnursatz verbunden haben, ist an eine ordentlich earthed Erdung von Behälter angeschlossen.

Eine alle Stange schaltet Vorrichtung muss sich befunden werden neben der Einheit ab oder, Wenn die AC Schnur benutzt ist, während die Hauptleitung Vorrichtung abschaltet, Sichert, dass der Steckdosensteckdose ist befunden/naher die Ausrüstungen installieren, und ist leicht zugänglich.

DIE HAUPTLEITUNGEN BLEIBE SIND GEMÄSS DEM FOLGENDEN CODE GEFÄRBT UND MÜSSEN IM FOLGENDEN SCHEMA VERBUNDEN WERDEN:

- Grün und Gelb – Erden Sie/Erde 
- Blau – neutral
- Braun – linie

WARNUNG – DIESE AUSTRÜSTUNGEN MUSS EARTHED WERDEN.

Für Fragen Kontakt Wybron an 1-800-624-0146 oder besucht www.wybron.com.

Produktänderungswarnung

Wybron, Inc. Produkte sind entworfen und sind hergestellt, die Voraussetzungen von Vereinigten Staaten und Internationalen Sicherheitsstandards zu erfüllen. Änderungen zu den Produkten könnten Sicherheit beeinflussen und könnten das Produkt leisten das verordnungswidrig ist zu relevanten Sicherheitsstandards.

Introduction

The PS-150, PS-300 and PS-600 are Wybron's new RDM compatible Power Supplies. The power supplies work with their compatible devices, allowing you to control the fan speed (where applicable) via one or multiple DMX channels on the lighting console. Plus, the compact power supplies attach easily to the truss of the lighting rig or mount into a 19-inch rack.

System Components

Power Supply

The power supply passes the DMX512 signal level from the lighting console and then sends to each device along with 24 volts DC. The DMX512 control signal from the lighting board is connected to the power supply and can continue on to more power supplies or other DMX-controlled devices. The power supply sends both power and control signal on a single cable eliminating the need for a separate power cable for each device attached.



Caution: The PS Power Supply is currently only compatible with Forerunner and NexeraLX. DO NOT connect PS Power Supplies to RAM/ColoramII devices (ColoramII, CXI, GoboramII, or Eclipse) and DO NOT connect Forerunner or NexeraLX to RAM/Coloram II Power Supplies. Damage from such action will not be covered by the equipment warranties.

Compatible Devices

At the time of printing of this manual, the PS-150, PS-300 and PS-600 Power Supplies are only for use with the following devices:

- Nexera LX
- Forerunner color changers

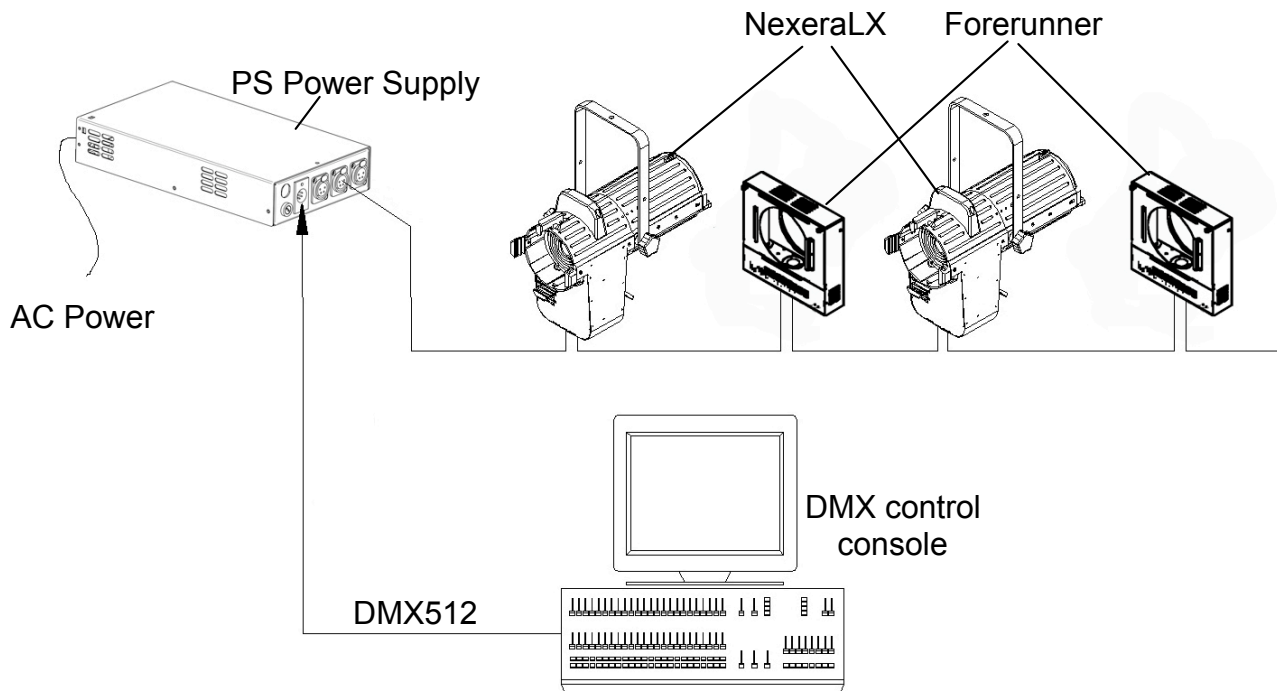
Refer to the Nexera LX or Forerunner user manuals for detailed operating information on these products. More products will be compatible in the future.

To operate Forerunner: *The maximum amount of cable per power supply output is 350 feet. The maximum number of color changers per power supply output is eight (8).*

Power/Data Cable

The Power/Data Cable connects the Power Supply outputs to the connected devices and provides them with power and control signal. The cable uses 4-pin XLR connectors on either end and consists of two 14 AWG conductors and a 22 AWG twisted, shielded pair.

Example of a system layout:



Equipment Compatibility

The following is a chart of compatibility and capacity of the various models of PS Power Supplies and the companion devices. This is current as of the print date of this manual. As more products are added to the compatible line, an updated list will be available on the Wybron website at www.wybron.com.

Power Supply:			PS-150	PS -300	PS -600
Model Number:			20150	20300	20600
Output Power:			150 watts	300 watts	600 watts

Quantity per Power Supply:

<i>Description</i>	<i>Model</i>	<i>Max. Head-Feet</i>			
			<i>PS-150</i>	<i>PS-300</i>	<i>PS-600</i>
NexeraLX - tungsten	2560,2570, 2640	1500	8	16	32
NexeraLX - CDM	2580,2600, 2650	1500	6	12	24
Forerunner – 4 inch	4540	n/a	16	32	64
Forerunner – 7 inch	7140	n/a	16	32	64

The above information assumes devices are on different channels and all move simultaneously

Installing / Connecting the Power Supply

To get your Power Supply up and running, follow these hookup and checkout procedures.

1. Mount the power supply

The Power Supply is designed to be free standing, truss mounted, or rack mounted.

The power supply comes with a mounting bracket which hooks over the pipe or truss of your lighting rig and is then locked into place with a thumb screw. If you have selected this mounting method, connect the power supply's safety cable by clipping it around the pipe or truss.

The power supply can also be mounted into a 19" rack using the optional rack mount kit. The rack mount kit will accommodate two power supplies side by side.

2. Connect the device to the power supply

Connect the device to the power supply using a 4-pin Wybron Power/Data cable.

Refer to the HEAD-FEET RESTRICTION section of the manual for details of the length of cable runs.

Note: The Wybron Power/Data Cable has been specially designed to minimize voltage drop -- use only Wybron supplied cable.

3. Connect the Power Supply to AC power

Plug the AC cord into a non-dimmed power circuit. The power supply automatically accommodates 100 – 240V ~ 50/60 Hz.



Caution: Do not power the power supply from a dimmed circuit. Severe damage will result and is not covered by product warranty.

Power at the power supply is indicated by the red LED which can be viewed from the stage.

4. Connect and set the DMX512 source

Connect the DMX512 signal source to the DMX input connector on the front of the power supply using standard DMX cable. The DMX signal will be indicated by a flashing green LED. The DMX signal will now position the gelstrings/vanes according to their respective DMX signal levels.

Head-Feet Restrictions

The HEAD-FEET parameter is a method of accounting for the voltage drop in the power/signal cable caused by the current drawn by each device.

To help understand this issue, think of it as water pressure (voltage) in a hose (cable) where you have multiple water sprinkler heads (color changers). If the hose (cable) is too long or you have too many sprinkler heads (color changers), the water pressure (voltage) will be too low.

HEAD-FEET is defined as "the sum of cable lengths from each device to a single power supply output".

Refer to the user manual of the specific components for detailed head-feet information on those products.

Mounting and Installation Accessories

The following sections describe the procedures for installation and replacement of mounting accessories.

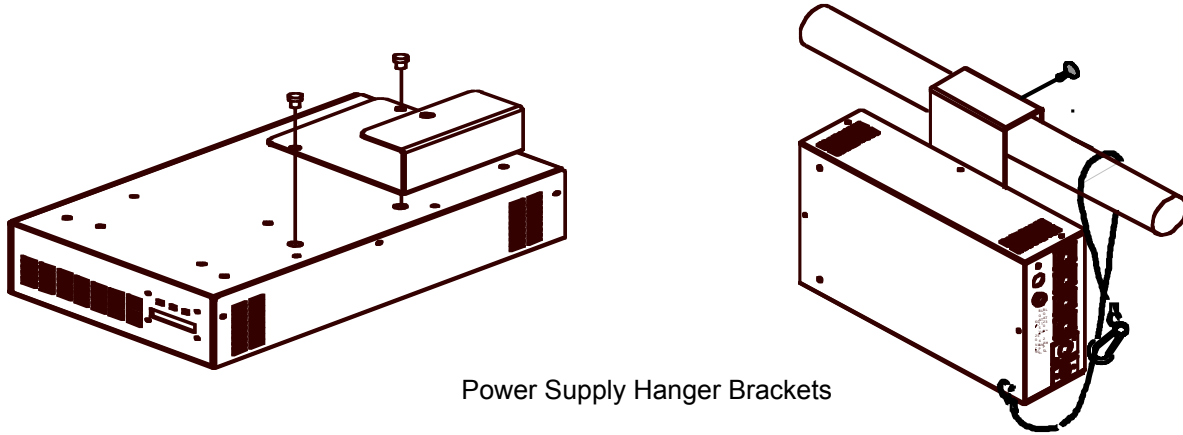
Power Supply hanger brackets

The power supplies are shipped with hanger brackets to allow pipe or truss mounting.

Follow these steps to install the hanger bracket.

1. Disconnect AC power from the power supply.
2. Place the power supply on its side on a flat surface.
3. Position the brackets as shown on the next page.
4. Attach the bracket using a 3/16" Allen wrench and the supplied screws.

Note: Use the supplied thumb screws to clamp the hanger brackets to the desired pipe or truss.



Power Supply Hanger Brackets

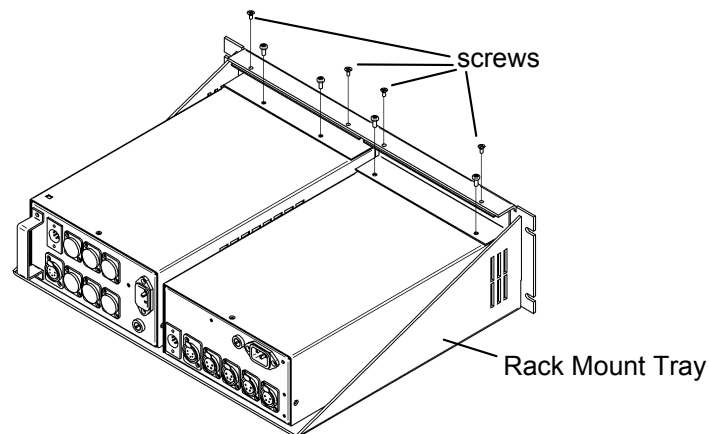
Power supply rack mounting

The rack mount accessory can be used with up to two power supplies and allows them to be mounted into a 19-inch rack.

Follow these steps to install the power supply into the rack mounting tray.

1. Disconnect AC power from the power supply.
2. Place the rack mount tray right side up on a flat surface.
3. Position the power supply in the rack mount tray as shown below.
4. Attach the power supply to the rack mount tray using the supplied screws.

Note: The cover plate may be removed to allow installation of a second power supply.



Cables

Power/Data Cable

The Power/Data Cable uses 4-pin XLR connectors on either end and consists of two 14 AWG conductors and a 22 AWG twisted, shielded pair. The shells of the two XLR connectors are not electrically connected together -- this prevents large power currents from flowing from chassis to chassis of the equipment. The twisted pair shield is connected at male XLR connector end only.

XLR Pin #	Wire Color	Function	Size
1	White	Ground	14 AWG
2	Green	Data -	22 AWG
3	Red	Data +	22 AWG
4	Black	24VDC	14 AWG

DMX512 Control Cable

The DMX control cable from the lighting console to the power supply is a five conductor cable with 5-pin XLR connectors on each end. The wiring pin out is specified by the USITT DMX512/1990 standard.

XLR Pin #	Function
1	Common
2	Data -
3	Data +
4	Talkback -
5	Talkback +

Specifications

PS-150, PS-300 and PS-600 Power Supply

Connectors:

DMX in: Male 5-pin XLR
DMX out: Female 5-pin XLR
Output: Female 4-pin XLR

DMX512 termination: None – DMX signal pass thru

Fuse:

PS-150 (model 20150):

Input voltage: 100-240V ~ 50/60 Hz 3-1.5A
250V 2A Slo Blo for 100-120V~
250V 1A Slo Blo for 220-240V~

PS-300 (model 20300):

Input voltage: 100-240V ~ 50/60 Hz 5-3A
250V 4A Slo Blo for 100-120V~
250V 2A Slo Blo for 220-240V~

PS-600 (model 20600):

Input voltage: 100-240V ~ 50/60 Hz 10-5A
250V 7A Slo Blo for 100-120V~
250V 4A Slo Blo for 220-240V~

Input Power: Automatically accepts 100-240V ~ 50/60 Hz

Input Signal: 1990 USITT standard DMX512

Red LED: Indicates power

Green LED: Indicates DMX signal

Size:

PS-150:

12.7"/323mm L x 7.6"/193mm W x 2.9"/74mm H
Weight: 3.9 lbs/1.8 kg

PS-300:

14"/356mm L x 7.8"/198mm W x 3"/76mm H
Weight: 5.4 lbs/2.4 kg

PS-600:

14"/356mm L x 7.8"/198mm W x 4.1"/104mm H
Weight: 7.9 lbs/3.6 kg

Parts List

To order any of the following items, contact your authorized WYBRON dealer.

The PS Power Supplies

20150.....	PS-150
20300.....	PS-300
20600.....	PS-600

The PS Mounting and Installation Accessories

715-01-03P	PS-150, PS-300 and PS-600 hanger bracket
SCRWC252075.....	Wing screw for power supply hanger bracket to pipe
SCRSC2520037.....	Socket cap screw for hanger bracket to power supply

Power/Data Cable

7042-3.....	3' power/signal cable
7042-5.....	5' power/signal cable
7042-10.....	10' power/signal cable
7042-15.....	15' power/signal cable
7042-25.....	25' power/signal cable
7042-50.....	50' power/signal cable
7042-75.....	75' power/signal cable
7042-100.....	100' power/signal cable

Warranty Information

WYBRON, INC. warrants to the original owner or retail customer that for a period of one year from date of delivery of a portable system or energization of a permanently installed system (up to a maximum of 18 months from delivery) its products will be free from defects in materials and workmanship under normal use and service.

Warranty does not cover any product or part of a product subject to accident, negligence, alteration, abuse, misuse or any accessories or parts not supplied by WYBRON, INC. Warranty does not cover "consumable" parts such as fuses, lamps, or color media. WYBRON, INC.'s warranty does not extend to items not manufactured by us. Freight terms on warranty repairs are FOB WYBRON, INC. factory or designated repair facility. Collect shipments or freight allowances will not be accepted.

WYBRON, INC.'s sole responsibility under this warranty shall be to repair or replace at WYBRON, INC.'s option such parts as shall be determined to be defected on WYBRON, INC.'s inspection. WYBRON, INC. will not assume any responsibility for any labor expended or materials used to repair any equipment without WYBRON, INC.'s prior written authorization. WYBRON, INC. shall not be responsible for any incidental, general or consequential damages to property, damages for loss of use, time, profits or income, or any other charges.

The owner's obligations during the warranty period under this warranty are to notify WYBRON, INC. at WYBRON, INC.'s address within one week of any suspected defect, and return the goods prepaid to WYBRON, INC. at their factory or authorized service center.

This warranty is contingent on the customer's full and timely compliance with the terms of payment set forth in said purchase order. This warranty is expressly in lieu of any and all other warranties expressed or implied including the warranties of merchantability and fitness for a particular purpose and of other obligations and liabilities on our part. The owner acknowledges that no other representations were made to him or relied upon him with respect to the quality and function of the goods sold.

This written warranty is intended as a complete and exclusive statement of the terms thereof. Prior dealings or trade usage shall not be relevant to modify, explain or vary this warranty. Acceptance of, or acquiescing in, a course of performance under this warranty shall not modify the meaning of this agreement even though either party has knowledge of the performance and a chance to object.



ADVANCING THE ART OF LIGHTING

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